

Changes in Haemolymph biochemical values during different growth phases in African Giant land snail (*Archachatina marginata*) swainson

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Abstract

The impact of growth phases on the haemolymph biochemical value of African giant land snail *Archachatina marginata* was studied. The growth phases were: snaillet, juvenile and Adult based on the number of whorls on the shell and weight of the snails. Highest concentration of glucose and lipids were recorded at the juvenile phase (40.20mg/dl and 48.60mg/dl). While least values for glucose (20.00mg/dl) and lipids (37.80mg/dl) were recorded during snaillet and adult phases respectively. A progressive increase in the concentration of protein was observed as the snails moved from snaillet phase to adult phase; hence snails in adult phase had the highest concentration of protein in their haemolymph. Growth phases significantly ($P < 0.05$) affected the haemolymph mineral composition of the snails. Juvenile phases had the highest values in Ca^{2+} , PO_4^{3-} and Na, while the adult phase recorded the least concentration in Ca^{2+} , Na and Cl^{-1} . Juvenile growth phase of *A. marginata* thus has better haemolymph biochemical values than both snaillet and adult growth phases.

Key words: growth phase, biochemical value, haemolymph, a marginata